# Commonwealth of Kentucky Division for Air Quality

# PERMIT APPLICATION SUMMARY FORM

Completed by: Andrew True

GENERAL INFORMATION:	
Name:	Equitable Gathering - Jenkins Compressor Station
Address:	1480 Industrial Park Road
	Jenkins, KY 41537
Date application received:	5/8/2008
SIC Code/SIC description:	1311, Crude Petroleum and Natural Gas
Source ID:	21-133-00109
Agency Interest:	100520
Activity:	APE20080001
Permit:	F-08-020
APPLICATION TYPE/PERMIT ACTIVITY	v·
[X] Initial issuance	
Permit modification	[ ] Conditional major
Administrative	[ ] Title V
Administrative Minor	[X] Synthetic minor
Willon Significant	[ ] Operating
Significant [ ] Permit renewal	[X] Construction/operating
[ ] I crimit ichewar	[A] Construction operating
COMPLIANCE SUMMARY:	
[ ] Source is out of complian	ce [ ] Compliance schedule included
[ ] Compliance certification	<u> •</u>
APPLICABLE REQUIREMENTS LIST:	
[ ] NSR	[ ] NSPS [X] SIP
[ ]PSD	[X] NESHAPS [ ] Other
	[X] Not major modification per 401 KAR 51:001,
	1(116)(b)
MISCELLANEOUS:	
[ ] Acid rain source	
[ ] Source subject to 112(r)	
[X] Source applied for federa	ally enforceable emissions cap
[ ] Source provided terms for	r alternative operating scenarios
[ ] Source subject to a MAC	Γ standard
[ ] Source requested case-by	-case 112(g) or (j) determination
[ ] Application proposes new	control technology
[ ] Certified by responsible of	official
[X] Diagrams or drawings in	cluded
[ ] Confidential business info	ormation (CBI) submitted in application
[ ] Pollution Prevention Mea	
[ ] Area is non-attainment (li	st pollutants):

#### **EMISSIONS SUMMARY:**

Pollutant	Actual (tpy)	Potential (tpy)
VOC	0	16.4
Single HAPs		
n-Hexane	0	0.1248
Benzene	0	0.1818
Toluene	0	0.8979
Ethyl benzene	0	0.2081
Xylenes	0	2.9061
Source wide HAPs	0	4.32

### **SOURCE DESCRIPTION:**

Equitable Gathering, LLC has submitted an air permit application to construct and operate a new natural gas compressor station in Letcher County near Jenkins, Kentucky (Jenkins Station). The station will be used to compress natural gas as it is being transported via pipeline. The Jenkins compressor station will consist of two (2) electric compressors, a glycol dehydration unit with associated natural gas fired reboiler, and six (6) small storage tanks. The emissions from the dehydrator unit will be vented to a flare for control of volatile organic compounds (VOC) and hazardous air pollutants (HAP).

Natural gas will enter the station via a distribution pipeline system and will be compressed using two (2) electric-powered compressors (Units #1 and #2). The compressed natural gas stream will then be processed through the triethylene glycol (TEG) dehydration unit. The dehydration unit will filter the natural gas and separate excess water using a distillation process in which heat is provided to the dehydrator column by a natural gas-fired reboiler, which will be rated at 1.0 million British thermal units per hour (mmBtu/hr). The natural gas stream from the dehydrator will then be reintroduced into the pipeline to be transported further along the distribution system. Liquid fractions removed from the natural gas via dehydration will be stored in small storage tanks at the station. The dehydrator exhaust will be vented to a flare for control of volatile organic compounds (VOC) and hazardous air pollutants (HAP).

### EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

The Jenkins Station could have uncontrolled emissions greater than 100 tpy of volatile organic compounds (VOC). The station could also have uncontrolled emissions greater than 10 tons per year (tpy) of an individual hazardous air pollutant (HAP) and 25 tpy of total HAPs. The sourcewide PTE of all pollutants will be less than major source thresholds without any federally enforceable emission limitations, except for VOC and HAP emissions. The flare will limit VOC and HAP emissions from the glycol dehydrator to less than major source levels (below 100 tpy and 10/25 tpy for VOC and HAP/HAPs respectively); therefore, the facility will be classified as a minor source for these pollutants. Due to the restriction of potential below major source thresholds, the federally enforceable permitting requirements for non-major sources will apply to the Jenkins Station.

#### OPERATIONAL FLEXIBILITY:

None